

Serial Number: 09/715,962CRF Processing Date: 12/6/2002Edited by: JAVerified by: JA

(STIC stat)

☐

Changed a file from non-ASCII to ASCII

☐

Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐

Edited a format error in the Current Application Data section, specifically:

☐Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____☐

Added the mandatory heading and subheadings for "Current Application Data".

☐

Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐

Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____

☐

Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____

☐

Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____

☐

Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐

Inserted colons after headings/subheadings. Headings edited included: _____

☐

Deleted extra, invalid, headings used by an applicant, specifically: _____

☐Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____☐

Inserted mandatory headings, specifically: _____

☐

Corrected an obvious error in the response, specifically: _____

☐

Edited identifiers where upper case is used but lower case is required, or vice versa.

☐

Corrected an error in the Number of Sequences field, specifically: _____

☐

A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____☒Other: Seq 4, 6 - corrected amino acid nos.

Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/715,962
 DATE: 12/14/2000
 TIME: 19:48:26

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\12142000\I715962.raw

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3 <110> APPLICANT: Bayer Aktiengesellschaft
5 <120> TITLE OF INVENTION: GABA-B-Rezeptoren
7 <150> FILE REFERENCE: Lo A 34 074
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/715,962
C--> 10 <141> CURRENT FILING DATE: 2000-11-17
12 <156> PRIOR APPLICATION NUMBER: DE 199 53 408.0
13 <151> PRIOR FILING DATE: 1999-11-18
15 <160> NUMBER OF SEQ ID NOS: 6
17 <170> SOFTWARE: PatentIn Ver. 2.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 2523
21 <212> TYPE: DNA
22 <213> ORGANISM: Drosophila melanogaster
24 <220> FEATURE:
25 <221> NAME/KEY: CDS
26 <222> LOCATION: (1)..(2520)
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31 1 5 10 15
33 ttg ctt tgt tta atc gcc tgg ccg cac ctg caa ggg ggc gtg gcc ggg 96
34 Leu Leu Cys Leu Ile Ala Ser Pro His Leu Gln Gly Gly Val Ala Gly
35 20 25 30
37 aag ccc gat gaa ctg cac atc gcc gcc atc ttt ccg ata gcc gcc aaa 144
38 Arg Pro Asp Glu Leu His Ile Gly Gly Ile Phe Pro Ile Ala Gly Lys
39 35 40 45
41 gga gga tgg cag gcc gcc cag gcc tgt atg cct gcc aca aga ctg gcc 192
42 Gly Gly Trp Gln Gly Gly Gln Ala Cys Met Pro Ala Thr Arg Leu Ala
43 50 55 60
45 ttg gat gat gtc aac aag cag ccg aat ctg ctg ccg gcc ttc aag ctc 240
46 Leu Asp Asp Val Asn Lys Gln Pro Asn Leu Leu Pro Gly Phe Lys Leu
47 65 70 75 80
49 atc ctg cac agc aac gac agc gag tgt gag ccc ggt ttg ggc gcc agc 288
50 Ile Leu His Ser Asn Asp Ser Glu Cys Glu Pro Gly Leu Gly Ala Ser
51 85 90 95
53 gtg atg tac aat ctg ctg tat aat aaa ccg caa aag ctg atg ctg ttg 336
54 Val Met Tyr Asn Leu Leu Tyr Asn Lys Pro Gln Lys Leu Met Leu Leu
55 100 105 110
57 gca gga tgc agc acg gtc tgc acc act gla gcc gag gct gcc aaa atg 384
58 Ala Gly Cys Ser Thr Val Cys Thr Thr Val Ala Glu Ala Ala Lys Met
59 115 120 125
61 tgg aat cta att gtg ctg tgc tac ggg gcc tgg agt ccg gct ctt tgg 432
62 Trp Asn Leu Ile Val Leu Cys Tyr Gly Ala Ser Ser Pro Ala Leu Ser
63 130 135 140
65 gat cgc aaa cga ttc ccc act cta ttc cgc acc cat cca tgg gcc acg 480
66 Asp Arg Lys Arg Phe Pro Thr Leu Phe Arg Thr His Pro Ser Ala Thr
67 145 150 155 160

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RAW SEQUENCE LISTING

DATE: 12/14/2000

PATENT APPLICATION: US/09/715,962

TIME: 15:48:26

Input Set : A:\Pto.amc

Output Set: N:\CRF3\12142000\I715962.raw

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71 165 170 175
73 cgg gtg gcc att ctg cag caa gag gag atc ttt ata tcc acc ata 578
74 Arg Val Ala Ile Leu Gln Gln Ala Glu Glu Val Phe Ile Ser Thr Val
75 186 185 190
77 gaa gat ctc gaa aat cca tgc atg gaa gct gcc gtt gaa atc gta act 624
78 Glu Asp Leu Glu Asn Arg Cys Met Glu Ala Gly Val Glu Ile Val Thr
79 195 200 205
81 aag caa tca ttt cta tcc gat cca acc gac gcc gtg cgc aat ttg cga 672
82 Arg Gln Ser Phe Leu Ser Asp Pro Thr Asp Ala Val Arg Asn Leu Arg
83 210 215 220
85 cgc caa gat gca cgc atc att atg gga ctc ttc tat atg gtg gcc gcc 720
86 Arg Gln Asp Ala Arg Ile Ile Val Gly Leu Phe Tyr Val Val Ala Ala
87 225 230 235 240
89 aag aag gtg ctc tgc gaa atg tac aaa cag caa cta tat gcc cga gct 768
90 Arg Arg Val Leu Cys Glu Met Tyr Lys Gln Gln Leu Tyr Gly Arg Ala
91 245 250 255
93 cat gtg tgg ttc ttt att gac tgg tac gag gac aac tgg tac gag gtg 816
94 His Val Trp Phe Phe Ile Gly Trp Tyr Glu Asp Asn Trp Tyr Glu Val
95 260 265 270
97 aat ctg aaa gca gag gcc atc acc tgc act gtt gaa caa atg cga ata 864
98 Asn Leu Lys Ala Glu Gly Ile Thr Cys Thr Val Glu Glu Met Arg Ile
99 275 280 285
101 gct gcc gaa gaa cat ctg acc acc gaa gcc ctc atg tgg aat caa aac 912
102 Ala Ala Glu Gly His Leu Thr Thr Glu Ala Leu Met Trp Asn Gln Asn
103 290 295 300
105 aat caa acc act ata tcc gga atg act gca caa gaa ttt cga cat cga 960
106 Asn Gln Thr Thr Ile Ser Gly Met Thr Ala Glu Glu Phe Arg His Arg
107 305 310 315 320
109 ctg aat cag gcg cta atc aag gaa ggt tac gac att aac cac gat cgc 1008
110 Leu Asn Gln Ala Leu Ile Glu Glu Gly Tyr Asp Ile Asn His Asp Arg
111 325 330 335
113 tat ccg gag gaa tat cag gag gcg cca ctc gcc tac gat gca gtg tgg 1056
114 Tyr Pro Glu Gly Tyr Gln Glu Ala Pro Leu Ala Tyr Asp Ala Val Trp
115 340 345 350
117 agt gtg gct ttg gct ttc aac aag acc atg gaa cga ttg aca acc ggg 1104
118 Ser Val Ala Leu Ala Phe Asn Lys Thr Met Glu Arg Leu Thr Thr Gly
119 355 360 365
121 aag aaa tct ctg agg gat ttt acc tat acg gac aag gag att gcc gat 1152
122 Lys Lys Ser Leu Arg Asp Phe Thr Tyr Thr Asp Lys Glu Ile Ala Asp
123 370 375 380
125 gaa atc tac gct gcc atg aac tcc acc caa ttt ctg ggt gta tgg ggt 1200
126 Glu Ile Tyr Ala Ala Met Asn Ser Thr Gln Phe Leu Gly Val Ser Gly
127 385 390 395 400
129 gtg gtg gca ttc agt tct caa gcc gat cgt att gct ctt aca caa atc 1248
130 Val Val Ala Phe Ser Ser Gln Gly Asp Arg Ile Ala Leu Thr Gln Ile
131 405 410 415
133 gaa cag atg ata gac gcc aag tac gag aag ttg ggt tac tac gat act 1296

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/715,962

DATE: 12/14/2000

TIME: 19:48:26

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Output Set: N:\CRF3\12142000\I715962.raw

134	Glu	Glu	Met	Ile	Asp	Gly	Lys	Tyr	Glu	Lys	Leu	Gly	Phe	Tyr	Asp	Thr	
135				420					425					430			
137	caq	ttc	gac	aac	cta	tcg	tgg	tgg	aac	aaa	caq	tgg	att	gat	ggc		1344
138	Gln	Leu	Asp	Asn	Leu	Ser	Trp	Leu	Asn	Phe	Glu	Gln	Trp	Ile	Gly	Gly	
139				435					440					445			
141	aaq	gtt	ccc	caa	gat	cgc	aca	att	gtc	acc	cat	glt	cta	cgc	acc	gtg	1392
142	Lys	Val	Pro	Gln	Asp	Ala	Thr	Ile	Val	Thr	His	Val	Leu	Arg	Thr	Val	
143				450					455					460			
145	tcg	ttg	cca	tta	ttt	gtg	tgc	atg	tgc	aca	ata	tcg	agt	tgt	ggc	ata	1410
146	Ser	Leu	Pro	Leu	Phe	Val	Cys	Met	Cys	Phe	Ile	Ser	Ser	Cys	Gly	Ile	
147	465								470					475			480
149	ttc	gtt	ggc	ttc	ggc	ttc	atc	atc	ttt	aac	ata	tgg	aac	aaq	cat	aaa	1486
150	Phe	Val	Ala	Phe	Ala	Leu	Ile	Ile	Phe	Asn	Ile	Trp	Asn	Lys	His	Arg	
151				485					490					495			
153	aga	gta	ata	caa	tcg	tcg	cat	ccc	glt	tgc	aac	acg	atc	atg	tta	ttt	1536
154	Arg	Val	Ile	Gln	Ser	Ser	His	Pro	Val	Cys	Asn	Thr	Ile	Met	Leu	Phe	
155				500					505					510			
157	ggt	gtc	atc	atc	tgt	cta	ata	tct	gtc	atc	tta	ctg	ggc	atc	gac	qga	1584
158	Gly	Val	Ile	Ile	Cys	Leu	Ile	Ser	Val	Ile	Leu	Leu	Gly	Ile	Asp	Gly	
159				515					520					525			
161	cgc	ttt	gtc	agg	ccc	gag	gaa	tat	cca	aag	ata	tgt	caa	ggc	ggg	got	1632
162	Arg	Phe	Val	Ser	Pro	Glu	Glu	Tyr	Pro	Lys	Ile	Cys	Gln	Ala	Arg	Ala	
163				530					535					540			
165	tgg	tta	cta	tcg	acc	ggc	ttt	aca	cta	gca	tac	ggt	gct	atg	ttc	agc	1680
166	Trp	Leu	Leu	Ser	Thr	Gly	Phe	Thr	Leu	Ala	Tyr	Gly	Ala	Met	Phe	Ser	
167	545								550					555			560
169	aaq	gtc	tgg	cgt	gtg	cat	cgt	ttt	aca	aca	aaa	gca	aaa	act	gac	cca	1728
170	Lys	Val	Trp	Arg	Val	His	Arg	Phe	Thr	Thr	Lys	Ala	Lys	Thr	Asp	Pro	
171				565					570					575			
173	aag	aaa	aaa	gtg	gaa	ccc	tgg	aag	cta	tac	acc	atg	gtt	tcg	ggg	cta	1776
174	Lys	Lys	Lys	Val	Glu	Pro	Trp	Lys	Leu	Tyr	Thr	Met	Val	Ser	Gly	Leu	
175				580					585					590			
177	tta	tca	ata	gat	tta	gtg	ata	tta	ctc	tca	tgg	cag	atc	ttt	gat	ccg	1824
178	Leu	Ser	Ile	Asp	Leu	Val	Ile	Leu	Leu	Ser	Trp	Gln	Ile	Phe	Asp	Pro	
179				595					600					605			
181	ctg	cag	cgt	tat	ctc	gaa	aca	ttc	cca	ctc	gaa	gac	cca	gta	tct	act	1872
182	Leu	Glu	Arg	Tyr	Leu	Glu	Thr	Phe	Pro	Leu	Glu	Asp	Pro	Val	Ser	Thr	
183				610					615					620			
185	act	gat	gat	att	aaa	ata	cgt	cca	gag	ctt	gag	cat	tgt	gaa	agt	caa	1920
186	Thr	Asp	Asp	Ile	Lys	Ile	Arg	Pro	Glu	Leu	Glu	His	Cys	Glu	Ser	Gln	
187	625								630					635			640
189	cgc	aac	tcc	atg	tgg	ttg	ggc	ctt	gta	tac	ggc	ttc	aaq	ggg	cta	atc	1968
190	Arg	Asn	Ser	Met	Trp	Leu	Gly	Leu	Val	Tyr	Gly	Phe	Lys	Gly	Leu	Ile	
191				645					650					655			
193	ctg	gtg	ttt	ggc	ctc	ttt	ttg	ggc	tac	gag	acg	cgc	tcc	att	aaa	gtg	2016
194	Leu	Val	Phe	Gly	Leu	Phe	Leu	Ala	Tyr	Glu	Thr	Arg	Ser	Ile	Lys	Val	
195				660					665					670			
197	aaa	cag	atc	aac	gat	tcg	cgt	tat	gtg	ggc	atg	agc	atc	tat	aac	gtg	2064
198	Lys	Glu	Ile	Asn	Asp	Ser	Arg	Tyr	Val	Gly	Met	Ser	Ile	Tyr	Asn	Val	

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/715,962

DATE: 12/14/2000

TIME: 19:48:26

Input Set : A:\Pto.amc

Output Set: N:\CRF3\12142000\I715962.raw

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201 gtc gtc ctt tgc ctg ata aca ggt ccg gtg ggc atg gtc att gca tcy 2112
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203 690          695          700
205 caa caa gac ggc tcc ttt gcc ttc att ggt cta ggt gtc ata ttc tgt 2160
206 Gln Gln Asp Ala Ser Phe Ala Phe Val Ala Leu Ala Val Ile Phe Cys
207 705          710          715          720
209 tgt ttc cta agc atg ctg ctg ata ttt gtc cca aag gtc att gaa gtt 2208
210 Cys Phe Leu Ser Met Leu Leu Ile Phe Val Pro Lys Val Ile Gln Val
211          725          730          735
213 ata cgt cat ccc aag gat aag gcc gaa tca aaa tac aat ccc gat tca 2256
214 Ile Arg His Pro Lys Asp Lys Ala Gln Ser Lys Tyr Asn Pro Asp Ser
215          740          745          750
217 gcc ata tcc aaa gag gac gaa gaa cgc tat caa aaa ctt gtt acc gaa 2304
218 Ala Ile Ser Lys Gln Asp Gln Gln Arg Tyr Gln Lys Leu Val Thr Gln
219          755          760          765
221 aac gag caa ttg caa cga tta ata aca cag aag gag gaa aag att cga 2352
222 Asn Gln Gln Leu Gln Arg Leu Ile Thr Gln Lys Gln Gln Lys Ile Arg
223          770          775          780
225 gtc ctg cga caa cgt ctg gta gag cgg gcc gac gcc aag gcc aca gaa 2400
226 Val Leu Arg Gln Arg Leu Val Gln Arg Gly Asp Ala Lys Gly Thr Gln
227 785          790          795          800
229 ctg aat ggt gca aca ggt atc gcc tcc gcc gcc gtt gca aca act tcy 2448
230 Leu Asn Gly Ala Thr Gly Val Ala Ser Ala Ala Val Ala Thr Thr Ser
231          805          810          815
233 cag gcc gct tcc ctg atc aac lea tca gca cat gcc acg ccc gca gcc 2496
234 Gln Pro Ala Ser Leu Ile Asn Ser Ser Ala His Ala Thr Pro Ala Ala
235          820          825          830
237 aca ctg gca atc aca caa ggt gag tag 2523
238 Thr Leu Ala Ile Thr Gln Gly Gln
239          835          840
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243 <211> LENGTH: 840
244 <212> TYPE: PRT
245 <213> ORGANISM: Drosophila melanogaster
247 <400> SEQUENCE: 2
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251 Leu Leu Cys Leu Ile Ala Ser Pro His Leu Gln Gly Gly Val Ala Gly
252 20 25 30
254 Arg Pro Asp Gln Leu His Ile Gly Gly Ile Phe Pro Ile Ala Gly Lys
255 35 40 45
257 Gly Gly Trp Gln Gly Gly Gln Ala Cys Met Pro Ala Thr Arg Leu Ala
258 50 55 60
260 Leu Asp Asp Val Asn Lys Gln Pro Asn Leu Leu Pro Gly Phe Lys Leu
261 65 70 75 80
263 Ile Leu His Ser Asn Asp Ser Gln Cys Gln Pro Gly Leu Gly Ala Ser
264 85 90 95
266 Val Met Tyr Asn Leu Leu Tyr Asn Lys Pro Gln Lys Leu Met Leu Leu

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/715,962

DATE: 12/14/2000

TIME: 19:48:26

Input Set : A:\Pto.amc

Output Set: N:\CRF3\12142000\I715962.raw

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267          100          105          110
269 Ala Gly Cys Ser Thr Val Cys Thr Thr Val Ala Glu Ala Ala Lys Met
270          115          120          125
272 Trp Asn Leu Ile Val Leu Cys Tyr Gly Ala Ser Ser Pro Ala Leu Ser
275          130          135          140
275 Asp Arg Lys Arg Phe Pro Thr Leu Phe Arg Thr His Pro Ser Ala Thr
276          145          150          155          160
275 Val His Asn Pro Thr Arg Ile Lys Leu Met Lys Lys Phe Gly Trp Ser
279          165          170          175
281 Arg Val Ala Ile Leu Gln Glu Ala Glu Val Phe Ile Ser Thr Val
282          180          185          190
284 Glu Asp Leu Glu Asn Arg Cys Met Glu Ala Gly Val Glu Ile Val Phe
285          195          200          205
287 Arg Gln Ser Phe Leu Ser Asp Pro Thr Asp Ala Val Arg Asn Leu Arg
288          210          215          220
290 Arg Gln Asp Ala Arg Ile Ile Val Gly Leu Phe Tyr Val Val Ala Ala
291 225          230          235          240
293 Arg Arg Val Leu Cys Glu Met Tyr Lys Gln Gln Leu Tyr Gly Arg Ala
294          245          250          255
296 His Val Trp Phe Phe Ile Gly Trp Tyr Glu Asp Asn Trp Tyr Glu Val
297          260          265          270
299 Asn Leu Lys Ala Glu Gly Ile Thr Cys Thr Val Glu Glu Met Arg Ile
300          275          280          285
302 Ala Ala Glu Gly His Leu Thr Thr Glu Ala Leu Met Trp Asn Gln Asn
303          290          295          300
305 Asn Gln Thr Thr Ile Ser Gly Met Thr Ala Glu Glu Phe Arg His Arg
306 305          310          315          320
308 Leu Asn Gln Ala Leu Ile Glu Glu Gly Tyr Asp Ile Asn His Asp Arg
309          325          330          335
311 Tyr Pro Glu Gly Tyr Gln Gln Ala Pro Leu Ala Tyr Asp Ala Val Trp
312          340          345          350
314 Ser Val Ala Leu Ala Phe Asn Lys Thr Met Glu Arg Leu Thr Thr Gly
315          355          360          365
317 Lys Lys Ser Leu Arg Asp Phe Thr Tyr Thr Asp Lys Glu Ile Ala Asp
318          370          375          380
320 Glu Ile Tyr Ala Ala Met Asn Ser Thr Gln Phe Leu Gly Val Ser Gly
321 385          390          395          400
323 Val Val Ala Phe Ser Ser Gln Gly Asp Arg Ile Ala Leu Thr Gln Ile
324          405          410          415
326 Glu Gln Met Ile Asp Gly Lys Tyr Glu Lys Leu Gly Tyr Tyr Asp Thr
327          420          425          430
329 Glu Leu Asp Asn Leu Ser Trp Leu Asn Thr Glu Gln Trp Ile Gly Gly
330          435          440          445
332 Lys Val Pro Gln Asp Arg Thr Ile Val Thr His Val Leu Arg Thr Val
333          450          455          460
335 Ser Leu Pro Leu Phe Val Cys Met Cys Thr Ile Ser Ser Cys Gly Ile
336 465          470          475          480
338 Phe Val Ala Phe Ala Leu Ile Ile Phe Asn Ile Trp Asn Lys His Arg
339          485          490          495

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/715,962

DATE: 12/14/2000

TIME: 19:48:27

Input Set : A:\Pto.amc

Output Set: N:\CRF3\12142000\I715962.raw

L:9 M:270 C: Current Application Number differs. Replaced Application Number
L:10 M:271 C: Current Filing Date differs. Replaced Current Filing Date

OIPE

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/715,962
 DATE: 12/06/2000
 TIME: 15:14:42

Input Set : A:\LeA34074.txt
 Output Set: N:\CRF3\12062000\I715962.raw

Does Not Comply
 Corrected Diskette Needed

4 <110> APPLICANT: Bayer Aktiengesellschaft
 5 <120> TITLE OF INVENTION: GABA-B-Rezeptoren
 6 <130> FILE REFERENCE: Le A 34 074
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/715,962
 C--> 10 <141> CURRENT FILING DATE: 2000-11-17
 12 <150> PRIOR APPLICATION NUMBER: DE 199 55 408.0
 13 <151> PRIOR FILING DATE: 1999-11-18
 15 <160> NUMBER OF SEQ ID NOS: 6
 17 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

728 <210> SEQ ID NO: 4
 729 <211> LENGTH: 1220
 730 <212> TYPE: PRF
 731 <213> ORGANISM: Drosophila melanogaster
 733 <400> SEQUENCE: 4
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 735 1 5 10 15
 737 Leu Trp Ser Thr Ala Cys Gly Arg Thr Ala Lys Arg Ser Asp Val Tyr
 738 20 25 30
 740 Ile Ala Gly Phe Phe Pro Tyr Gly Asp Gly Val Glu Asn Ser Tyr Thr
 741 35 40 45
 743 Gly Arg Gly Val Met Pro Ser Val Lys Leu Ala Leu Gly His Val Asn
 744 50 55 60
 746 Glu His Gly Lys Ile Leu Ala Asn Tyr Arg Leu His Met Trp Trp Asn
 747 65 70 75 80
 749 Asp Thr Glu Cys Asn Ala Ala Val Gly Val Lys Ser Phe Phe Asp Met
 750 85 90 95
 752 Met His Ser Gly Pro Asn Lys Val Met Leu Phe Gly Ala Ala Cys Thr
 753 100 105 110
 755 His Val Thr Asp Pro Ile Ala Lys Ala Ser Lys His Trp His Leu Thr
 756 115 120 125
 758 Glu Leu Ser Tyr Ala Asp Thr His Pro Met Phe Thr Lys Asp Ala Phe
 759 130 135 140
 761 Pro Asn Phe Phe Arg Val Val Pro Ser Glu Asn Ala Phe Asn Ala Pro
 762 145 150 155 160
 764 Arg Leu Ala Leu Leu Lys Glu Phe Asn Trp Thr Arg Val Gly Thr Val
 765 165 170 175
 767 Tyr Glu Asn Glu Pro Arg Tyr Ser Leu Pro His Asn His Met Val Ala
 768 180 185 190
 770 Asp Leu Asp Ala Met Glu Val Glu Val Val Glu Thr Glu Ser Phe Val
 771 195 200 205
 773 Asn Asp Val Ala Glu Ser Leu Lys Lys Leu Arg Glu Lys Asp Val Arg
 774 210 215 220
 776 Ile Ile Leu Gly Asn Phe Asn Glu His Phe Ala Arg Lys Ala Phe Cys

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/715,962

Date: 12/06/2000

Time: 15:14:12

Input Set : A:\LeA34074.txt

Output Set: N:\CRF3\12062000\I715962.raw

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779 Glu Ala Tyr Lys Leu Asp Met Tyr Gly Arg Ala Tyr Gln Trp Leu Ile
780          245          250          255
782 Met Ala Thr Tyr Ser Thr Asp Trp Trp Asn Val Thr Gln Asp Ser Glu
783          260          265          270
785 Cys Ser Val Glu Gln Ile Ala Thr Ala Leu Glu Gly Ala Ile Leu Val
786          275          280          285
788 Asp Leu Leu Pro Leu Ser Thr Ser Gly Asp Ile Thr Val Ala Gly Ile
789          290          295          300
791 Thr Ala Asp Glu Tyr Leu Val Glu Tyr Asp Arg Leu Arg Gly Thr Glu
792 305          310          315          320
794 Tyr Ser Arg Phe His Gly Tyr Thr Tyr Asp Gly Ile Trp Ala Ala Ala
795          325          330          335
797 Leu Ala Ile Gln Tyr Val Ala Glu Lys Arg Glu Asp Leu Leu Thr His
798          340          345          350
800 Phe Asp Tyr Arg Val Lys Asp Trp Glu Ser Val Phe Leu Glu Ala Leu
801          355          360          365
803 Arg Asn Thr Ser Phe Glu Gly Val Thr Gly Pro Val Arg Phe Tyr Asn
804          370          375          380
806 Asn Glu Arg Lys Ala Asn Ile Leu Ile Asn Glu Phe Glu Leu Gly Gln
807 385          390          395          400
809 Met Glu Lys Ile Gly Glu Tyr His Ser Gln Lys Ser His Leu Asp Leu
810          405          410          415
812 Ser Leu Gly Lys Pro Val Lys Trp Val Gly Lys Thr Pro Pro Lys Asp
813          420          425          430
815 Arg Thr Leu Ile Tyr Ile Glu His Ser Gln Val Asn Pro Thr Ile Tyr
816          435          440          445
818 Ile Val Ser Ala Ser Ala Ser Val Ile Gly Val Ile Ile Ala Thr Val
819          450          455          460
821 Phe Leu Ala Phe Asn Ile Lys Tyr Arg Asn Gln Arg Tyr Ile Lys Ser
822 465          470          475          480
824 Ser Ser Pro His Leu Asn Asn Leu Ile Ile Val Gly Cys Met Ile Thr
825          485          490          495
827 Tyr Leu Ser Ile Ile Phe Leu Gly Leu Asp Thr Thr Leu Ser Ser Val
828          500          505          510
830 Ala Ala Phe Pro Tyr Ile Cys Thr Ala Arg Ala Trp Ile Leu Met Ala
831          515          520          525
833 Gly Phe Ser Leu Ser Phe Gly Ala Met Phe Ser Lys Thr Trp Arg Val
834          530          535          540
836 His Ser Ile Phe Thr Asp Leu Lys Leu Asn Lys Lys Val Ile Lys Asp
837 545          550          555          560
839 Tyr Gln Leu Phe Met Val Val Gly Val Leu Leu Ala Ile Asp Ile Ala
840          565          570          575
842 Ile Ile Thr Thr Trp Gln Ile Ala Asp Pro Phe Tyr Arg Glu Thr Lys
843          580          585          590
845 Gln Leu Glu Pro Leu His His Glu Asn Ile Asp Asp Val Leu Val Ile
846          595          600          605
848 Pro Glu Asn Glu Tyr Cys Gln Ser Glu His Met Thr Ile Phe Val Ser
849          610          615          620

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/715,962

DATE: 12/06/2000

TIME: 15:14:12

Input Set : A:\LeA34074.txt

Output Set : N:\CRF3\12062000\I715962.raw

```

331 Ile Ile Tyr Ala Tyr Lys Gly Leu Leu Leu Val Phe Gly Ala Phe Leu
332 825 640 935 649
334 Ala Trp Gln Thr Arg His Val Ser Ile Pro Ala Leu Asn Asp Ser Lys
335 827 645 950 655
337 His Ile Gly Phe Ser Val Tyr Asn Val Phe Ile Thr Cys Leu Ala Gly
338 858 660 965 670
360 Ala Ala Ile Ser Leu Val Leu Ser Asp Arg Lys Asp Leu Val Phe Val
361 875 680 685
363 Leu Leu Ser Phe Phe Ile Ile Phe Cys Thr Thr Ala Thr Leu Cys Leu
364 690 695 700
366 Val Phe Val Pro Lys Leu Val Glu Leu Lys Arg Asn Pro Gln Gly Val
367 705 710 715 720
369 Val Asp Lys Arg Val Arg Ala Thr Leu Arg Pro Met Ser Lys Asn Gly
370 725 730 735
372 Arg Arg Asp Ser Ser Val Cys Glu Leu Glu Gln Arg Leu Arg Asp Val
373 740 745 750
375 Lys Asn Thr Asn Cys Arg Phe Arg Lys Ala Leu Met Glu Lys Glu Asn
376 755 760 765
378 Glu Leu Gln Ala Leu Ile Arg Lys Leu Gly Pro Glu Ala Arg Lys Trp
379 770 775 780
381 Ile Asp Gly Val Thr Cys Thr Gly Gly Ser Asn Val Gly Ser Glu Leu
382 785 790 795 800
384 Glu Pro Ile Leu Asn Asp Asp Ile Val Arg Leu Ser Ala Pro Pro Val
385 805 810 815
387 Arg Arg Gln Met Pro Ser Thr Thr Val Thr Glu Met Thr Ser Val Asp
388 820 825 830
390 Ser Val Thr Ser Thr His Val Glu Met Asp Asn Ser Phe Val Ser Val
391 835 840 845
393 Glu Ser Thr Val Met Ala Pro Ser Leu Pro Pro Lys Lys Lys Lys Glu
394 850 855 860
396 Ser Ile Val Glu His His Ser His Ala Pro Ala Pro Thr Met Met Gln
397 865 870 875 880
399 Pro Ile Gln Gln Gln Leu Gln Gln His Leu Gln Gln His Gln Gln Met
400 885 890 895
402 Gln Gln Gln His Leu Gln Gln Gln Gln His Gln Gln Met Gln Gln Gln
403 900 905 910
405 Gln Gln Gln Gln Gln His His His Arg His Leu Glu Lys Arg Asn Ser
406 915 920 925
408 Val Ser Ala Gln Thr Asp Asp Asn Ile Gly Ser Ile Thr Ser Thr Ala
409 930 935 940
411 Gly Lys Arg Ser Gly Gly Asp Cys Ser Ser Met Arg Glu Arg Arg Gln
412 945 950 955 960
414 Ser Thr Ala Ser Arg His Tyr Asp Ser Gly Ser Gln Thr Pro Thr Ala
415 965 970 975
417 Arg Pro Lys Tyr Ser Ser Ser His Arg Asn Ser Ser Thr Asn Ile Ser
418 980 985 990
420 Thr Ser Gln Ser Glu Leu Ser Asn Met Cys Pro His Ser Lys Pro Ser
421 995 1000 1005
423 Thr Pro Ala Val Ile Lys Thr Pro Thr Ala Ser Asp His Arg Arg Thr

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/715,962

DATE: 12/06/2000

TIME: 15:14:12

Input Set : A:\LeA34074.txt

Output Set: N:\CRF3\12062000\1715962.raw

```

924      1010      1015      1020
925 Ser Met Gly Ser Ala Leu Lys Ser Asn Phe Val Val Ser Gln Ser Asp
E--> 927 025/1025      1030      1035      1040
929 Leu Trp Asp Thr His Thr Leu Ser His Ala Lys Gln Arg Gln Ser Pro
930      1045      1050      1055
932 Arg Asn Tyr Ala Ser Pro Gln Arg Cys Ala Glu His His Gly Gly His
933      1060      1065      1070
935 Gly Met Thr Tyr Asp Pro Asn Thr Thr Ser Pro Ile Gln Arg Ser Val
936      1075      1080      1085
938 Ser Gln Lys Asn Arg Asn Lys His Arg Pro Lys Pro Gln Lys Gly Thr
939      1090      1095      1100
941 Val Cys Gln Ser Glu Thr Asp Ser Glu Arg Glu Arg Asp Pro Pro Pro
E--> 942 105/1105      1110      1115      1120
944 Asn Ser Gln Pro Cys Val Gln Pro Arg Lys Val Ser Arg Ser Ser Asn
945      1125      1130      1135
947 Ile Gln His Ala Ala His His His Ser Ser Pro Asn Val Ala Pro Asp
948      1140      1145      1150
950 Lys Gln Arg Ser Arg Gln Arg Gly Lys Gln Asp Ser Ser Ile Tyr Gly
951      1155      1160      1165
953 Ala Ser Ser Glu Thr Glu Leu Leu Glu Gly Glu Thr Ala Ile Leu Pro
954      1170      1175      1180
956 Ile Phe Arg Lys Leu Leu Thr Glu Lys Ser Pro Asn Tyr Arg Gly Arg
E--> 957 185/1185      1190      1195      1200
959 Ser Ala Val Gly Gln Ser Cys Pro Asn Ile Ser Ile Lys Cys Asp Ile
960      1205      1210      1215
962 Val Glu Tyr Leu
963      1220
1306 <210> SEQ ID NO: 6
1307 <211> LENGTH: 1305
1308 <212> TYPE: PR1
1309 <213> ORGANISM: Drosophila melanogaster
1311 <400> SEQUENCE: 6
1312 Met Arg Ile Ile Gln Pro Val Gln Gly Thr Arg Tyr Gly Pro Trp Pro
1313      1      5      10      15
1315 Ala Val Gly Leu Arg Leu Val Leu Ala Leu Ala Trp Ala Thr Ser Ala
1316      20      25      30
1318 Ala Ala Ala Met Glu Ser Ser Ala Glu Leu Gln Ala Leu Gly His Glu
1319      35      40      45
1321 Ala Ile Arg Pro Gly Ala Ala Ser Ile Ser Thr Ser Ser Pro Ser Ser
1322      50      55      60
1324 Ser Pro Pro Gly Glu Ser Ala Ser Thr Val Thr Ala Gly Gly Thr Pro
1325      65      70      75      80
1327 Ile Pro Pro Arg Ser Asp Trp Lys Tyr Lys Arg Thr Lys Val Lys Arg
1328      85      90      95
1330 Arg Glu Gln Arg Leu Asn Ser His Ser Asn Leu Pro Gly Ser Thr Asn
1331      100      105      110
1333 Ala Ser His Ala His His Leu Leu Asn Leu Pro Pro Arg Gln Arg Tyr
1334      115      120      125
1336 Leu Lys Val Asn Gln Val Phe Glu Ser Glu Arg Arg Met Ser Pro Ala

```

RAW SEQUENCE LISTING

DATE: 12/06/2000

PATENT APPLICATION: US/09/715,962

TIME: 15:14:13

Input Set : A:\LeA34074.txt

Output Set: H:\CRF3\12062000\I715962.raw

```

1337      130      135      140
1339 Glu Met Gln Arg Asn His Gly Lys Ile Val Leu Leu Gly Leu Phe Gln
1340 145      150      155      160
1342 Leu Ser Thr Ser Arg Gly Pro Arg Pro Asp Gly Leu Ser Glu Leu Gly
1343      165      170      175
1345 Ala Ala Thr Met Ala Val Glu His Ile Asn Arg Lys Arg Leu Leu Pro
1346      180      185      190
1348 Gly Tyr Thr Leu Glu Leu Val Thr Asn Asp Thr Gln Cys Asp Pro Gly
1349      195      200      205
1351 Val Gly Val Asp Arg Phe Phe His Ala Ile Tyr Thr Gln Pro Ser Thr
1352      210      215      220
1354 Arg Met Val Met Leu Leu Gly Ser Ala Cys Ser Glu Val Thr Glu Ser
1355 225      230      235      240
1357 Leu Ala Lys Val Val Pro Tyr Trp Asn Ile Val Gln Val Ser Phe Gly
1358      245      250      255
1360 Ser Thr Ser Pro Ala Leu Ser Asp Arg Arg Glu Phe Pro Tyr Phe Tyr
1361      260      265      270
1363 Arg Thr Val Ala Pro Asp Ser Ser His Asn Pro Ala Arg Ile Ala Phe
1364      275      280      285
1366 Ile Arg Lys Phe Gly Trp Gly Thr Val Thr Thr Phe Ser Gln Asn Glu
1367      290      295      300
1369 Glu Val His Ser Leu Ala Val Asn Asn Leu Val Thr Glu Leu Glu Ala
1370 305      310      315      320
1372 Ala Asn Ile Ser Cys Ala Ala Thr Ile Thr Phe Ala Ala Thr Asp Phe
1373      325      330      335
1375 Lys Glu Gln Leu Leu Leu Leu Arg Glu Thr Asp Thr Arg Ile Ile Ile
1376      340      345      350
1378 Gly Ser Phe Ser Gln Glu Leu Ala Pro Gln Ile Leu Cys Glu Ala Tyr
1379      355      360      365
1381 Arg Leu Arg Met Phe Gly Ala Asp Tyr Ala Trp Ile Leu His Glu Ser
1382      370      375      380
1384 Met Gly Ala Pro Trp Trp Pro Asp Gln Arg Thr Ala Cys Ser Asn His
1385 385      390      395      400
1387 Glu Leu Gln Leu Ala Val Glu Asn Leu Ile Val Val Ser Thr His Asn
1388      405      410      415
1390 Ser Ile Val Gly Asn Asn Val Ser Tyr Ser Gly Leu Asn Asn His Met
1391      420      425      430
1393 Phe Asn Ser Gln Leu Arg Lys Gln Ser Ala Gln Phe His Gly Gln Asp
1394      435      440      445
1396 Gly Phe Gly Ser Gly Tyr Gly Pro Arg Ile Ser Ile Ala Ala Thr Gln
1397      450      455      460
1399 Ser Asp Ser Arg Arg Arg Arg Arg Gly Val Val Gly Thr Ser Gly
1400 465      470      475      480
1402 Gly His Leu Phe Pro Glu Ala Ile Ser Gln Tyr Ala Pro Gln Thr Tyr
1403      485      490      495
1405 Asp Ala Val Trp Ala Ile Ala Leu Ala Leu Arg Ala Ala Glu Glu His
1406      500      505      510
1408 Trp Arg Arg Asn Glu Glu Gln Ser Lys Leu Asp Gly Phe Asp Tyr Thr
1409      515      520      525

```

RAW SEQUENCE LISTING

PEPFORM APPLICATION: US/09/715,962

DATE: 12/30/2000

TIME: 15:14:13

Input Set : A:\IeA34074.txt

Output Set: N:\CRF3\12062000\1715962.raw

```

1411 Arg Ser Asp Met Ala Trp Glu Phe Leu Gln Gln Met Gly Lys Leu His
1412      530      535      540
1414 Phe Leu Gly Val Ser Gly Pro Val Ser Phe Ser Gly Pro Asp Arg Val
1415 545      550      555      560
1417 Gly Thr Thr Ala Phe Tyr Gln Ile Gln Arg Gly Leu Leu Glu Pro Val
1418      565      570      575
1420 Ala Leu Tyr Tyr Pro Ala Thr Asp Ala Leu Asp Phe Arg Cys Pro Arg
1421      580      585      590
1422 Cys Arg Pro Val Lys Trp His Ser Gly Gln Val Pro Ile Ala Lys Arg
1424      595      600      605
1426 Val Phe Lys Leu Arg Val Ala Thr Ile Ala Pro Leu Ala Phe Tyr Thr
1427      610      615      620
1429 Ile Ala Thr Leu Ser Ser Val Gly Ile Ala Leu Ala Ile Thr Phe Leu
1430 625      630      635      640
1432 Ala Phe Asn Leu His Phe Arg Lys Leu Lys Ala Ile Lys Leu Ser Ser
1433      645      650      655
1435 Pro Lys Leu Ser Asn Ile Thr Ala Val Gly Cys Ile Phe Val Tyr Ala
1436      660      665      670
1438 Thr Val Ile Leu Leu Gly Leu Asp His Ser Thr Leu Pro Ser Ala Glu
1439      675      680      685
1441 Asp Ser Phe Ala Thr Val Cys Thr Ala Arg Val Tyr Leu Leu Ser Ala
1442      690      695      700
1444 Gly Phe Ser Leu Ala Phe Gly Ser Met Phe Ala Lys Thr Tyr Arg Val
1445 705      710      715      720
1447 His Arg Ile Phe Thr Arg Thr Gly Ser Val Phe Lys Asp Lys Met Leu
1448      725      730      735
1450 Gln Asp Ile Gln Leu Ile Leu Leu Val Gly Gly Leu Leu Leu Val Asp
1451      740      745      750
1453 Ala Leu Leu Val Thr Leu Trp Val Val Thr Asp Pro Met Glu Arg His
1454      755      760      765
1456 Leu His Asn Leu Thr Leu Glu Ile Ser Ala Thr Asp Arg Ser Val Val
1457      770      775      780
1459 Tyr Gln Pro Gln Val Glu Val Cys Arg Ser Gln His Thr Gln Thr Trp
1460 785      790      795      800
1462 Leu Ser Val Leu Tyr Ala Tyr Lys Gly Leu Leu Val Val Gly Val
1463      805      810      815
1465 Tyr Met Ala Trp Glu Thr Arg His Val Lys Ile Pro Ala Leu Asn Asp
1466      820      825      830
1468 Ser Gln Tyr Ile Gly Val Ser Val Tyr Ser Val Val Ile Thr Ser Ala
1469      835      840      845
1471 Ile Val Val Val Leu Ala Asn Leu Ile Ser Glu Arg Val Thr Leu Ala
1472      850      855      860
1474 Phe Ile Thr Ile Thr Ala Leu Ile Leu Thr Ser Thr Thr Ala Thr Leu
1475 865      870      875      880
1477 Cys Leu Leu Phe Ile Pro Lys Leu His Asp Ile Trp Ala Arg Asn Asp
1478      885      890      895
1480 Ile Ile Asp Pro Val Ile His Ser Met Gly Leu Lys Met Glu Cys Asn
1481      900      905      910
1483 Thr Arg Arg Phe Val Val Asp Asp Arg Arg Glu Leu Gln Tyr Arg Val

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/715,962

DATE: 12/06/2000

TIME: 15:14:13

Input Set : A:\LeA34074.txt

Output Set: N:\CRF3\12062000\I715962.raw

```

1484          915          920          925
1486 Glu Val Gln Asn Arg Val Tyr Lys Lys Glu Ile Val Ala Leu Asp Ala
1487          930          935          940
1489 Gln Ile Ala Arg Lys Leu Glu Arg Leu Leu Glu Ser Gly Leu Thr Thr Thr
1490 945          950          955          960
1492 Ser Thr Thr Thr Ser Ser Ser Thr Ser Leu Leu Thr Gly Gly Gly His
1493          965          970          975
1495 Leu Lys Pro Glu Leu Thr Val Thr Ser Gly Ile Ser Gln Thr Pro Ala
1496          980          985          990
1498 Ala Ser Lys Asn Arg Thr Pro Ser Ile Ser Gly Ile Leu Pro Asn Leu
1499          995          1000          1005
1501 Leu Leu Ser Val Leu Pro Pro-Val Ile Pro Arg Ala Ser Trp Pro Ser
1502          1010          1015          1020
1504 Ala Gln Tyr Met Gln Ile Pro Met Arg Arg Ser Val Thr Phe Ala Ser
E--> 1505 1025          1030          1035          1040
1507 Gln Pro Gln Leu Glu Gln Ala Cys Leu Pro Ala Gln Asp Leu Ile Asn
1508          1045          1050          1055
1510 Leu Arg Leu Ala His Gln Gln Ala Thr Glu Ala Lys Thr Gly Leu Ile
1511          1060          1065          1070
1513 Asn Arg Leu Arg Gly Ile Phe Ser Arg Thr Thr Ser Ser Asn Lys Gly
1514          1075          1080          1085
1516 Ser Thr Ala Ser Leu Ala Asp Gln Lys Gly Leu Lys Ala Ala Phe Lys
1517          1090          1095          1100
1519 Ser His Met Gly Leu Phe Thr Arg Leu Ile Pro Ser Ser Gln Thr Ala
E--> 1520 1105          1110          1115          1120
1522 Ser Cys Asn Ala Ile Tyr Asn Asn Pro Asn Gln Asp Ser Ile Pro Ser
1523          1125          1130          1135
1525 Gln Ala Ser Ser His Pro Asn Gly Asn His Leu Lys Pro Ile His Arg
1526          1140          1145          1150
1528 Gly Ser Leu Thr Lys Ser Gly Thr His Leu Asp His Leu Thr Lys Asp
1529          1155          1160          1165
1531 Pro Asn Phe Leu Pro Ile Pro Thr Ile Ser Gly Gly Glu Gln Gly Asp
1532          1170          1175          1180
1534 Gln Thr Leu Gly Gly Lys Tyr Val Lys Leu Leu Glu Thr Lys Val Asn
E--> 1535 1185          1190          1195          1200
1537 Phe Gln Leu Pro Ser Asn Arg Arg Pro Ser Val Val Gln Gln Pro Pro
1538          1205          1210          1215
1540 Ser Leu Arg Glu Arg Val Arg Gly Ser Pro Arg Phe Pro His Arg Ile
1541          1220          1225          1230
1543 Leu Pro Pro Thr Cys Ser Leu Ser Ala Leu Ala Glu Ser Glu Asp Arg
1544          1235          1240          1245
1546 Pro Gly Asp Ser Thr Ser Ile Leu Gly Ser Cys Lys Ser Ile Pro Arg
1547          1250          1255          1260
1549 Ile Ser Leu Gln Glu Val Thr Ser Gly Gly Thr Trp Lys Ser Met Glu
E--> 1550 1265          1270          1275          1280
1552 Thr Val Gly Lys Ser Arg Leu Ser Leu Gly Asp Ser Gln Glu Glu Glu
1553          1285          1290          1295
1555 Gln Gln Ala Pro Ala Asn Gly Thr Glu
1556          1300          1305

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/715,962

DATE: 12/06/2000

TIME: 15:14:44

Input Set : A:\LeA34074.txt

Output Set: N:\CRF3\12062000\1715962.raw

L:9 H:279 C: Current Application Number differs. Replaced Application Number
L:9 H:279 C: Current Filing Date differs. Replaced Current Filing Date
L:27 H:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:4
H:32 Repeated in SeqNo:4
L:505 H:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:6
H:332 Repeated in SeqNo:5